



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

ch

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/841,318	04/30/97	HATAKEYAMA K	1259-0191F-5

LM01/0622
BIRCH STEWART KOLASCH AND BIRCH
PO BOX 747
FALLS CHURCH VA 22040-0747

EXAMINER FERGUSON, E

ART UNIT 2712	PAPER NUMBER
------------------	--------------

9

06/22/99
DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/841,318

Applicant(s)
Kouki Hatakeyama

Examiner
Eric Ferguson

Group Art Unit
2712



☒ Responsive to communication(s) filed on Apr 8, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2712

Arguments Are Not Persuasive

1. Applicant's arguments filed 4/8/99, 1) Yokoyama doesn't add signal charges differently with respect to odd and even fields, 2) Neither reference teaches reading signal charges stored in the individual pixels of the solid state imaging device by sequential scanning, and 3) Neither reference teaches the step of determining, in response to the shutter release operation, the second charge storage time based on the first charge storage time, have been fully considered but are not considered persuasive.

2. The applicant's arguments are not persuasive because, 1) Yokoyama teaches the different adding of signal charges in odd and even fields in lines 57-66 in column 3, where in the first field (odd field) charges are initially transferred one by one and then later the residual charges are transferred on a two by two basis (an odd charge and an even charge), and the second field (even field) charges are only transferred on a two by two basis, 2) Parulski et al. teaches sequential scanning on lines 1-2 in column 6, 3) Sasaki teaches the step of determining, in response to the shutter release operation, the second charge storage time based on the first charge storage time as the last sentence of the abstract and lines 38-42 in column 4.

Art Unit: 2712

DETAILED ACTION

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The following title is suggested: A Method of Controlling the Display Mode and the Recording Mode of an Electronic Still Camera.

Drawings

5. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Specification

6. The disclosure is objected to because of the following informalities:
 - There is a missing word between the words "up" and "image" on line 4 on page 1.
 - Replace the word "photographic" on line 21 of page 1.
 - The phrase "color light" on line 6 of page 2 is unclear.
 - There is a missing word between the words "of" and "pixel" on line 5 of page 11.
 - There are missing words between the words "invention" and "pick" on line 3 of page 16.

Art Unit: 2712

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1, 2, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (4,837,628) in view of Yokoyama (5,239,380) in further view of Morimura et al. (4,570,178) in further view of Miyazaki (4,929,824) in further view of Parulski et al. (5,828,406).

A. Considering claim 1, Sasaki discloses all the claimed subject matter, note: 1) the claimed electronic still camera is met by line 7-10 in column 1, 2) the claimed electronic view finder is met by element 30 in figure 2 and line 66 in column 3, 3) the claimed recording medium is met by element 15 in figure 2, 4) the claimed shutter release is met by the abstract, except 1) the claimed image field addition steps, 2) the claimed color filter, 3) the claimed automatic exposure mechanism, and 4) the claimed sequential scanning.

Art Unit: 2712

B. Yokoyama discloses the claimed image field addition steps in the abstract, figure 11, lines 19-30 in column 1, and lines 40-56 in column 3. Morimura et al. discloses the claimed color filters in lines 5-13 in column 5. Miyazaki discloses the claimed automatic exposure mechanism in lines 32-48 in column 7. Parulski et al. discloses the claimed sequential scanning lines 1-2 in column 6.

C. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Sasaki's electronic still camera with; Yokoyama's image field addition techniques, Morimura et al.'s color filters, the automatic exposure mechanism of Miyazaki, and the sequential scanning of Parulski et al.

D. The motivation for modifying Sasaki's electronic still camera with the Yokoyama's image field addition techniques would have been to allow interlace scanning of the solid state imaging device in the display mode. This modification would have been obvious because combining pixels to obtain a field image signal for the purpose of allowing the full frame reading of the solid state imaging device is known in the art. Yokoyama teaches this on lines 19-31 in column 7. The motivation for modifying Sasaki's electronic still camera with Morimura et al.'s color filters would have been to eliminate optical crosstalk. This modification would have been obvious because using a color filters to produce a color signal is known in the art. Morimura et al. teaches this on lines 5-13 in column 5. The motivation for modifying Sasaki's manual exposure with

Art Unit: 2712

Miyazaki's automatic exposure mechanism would have been to reduce user error. This modification would have been obvious because manual exposure is prone to user error. Miyazaki teaches this on lines 54-60 in column 1. The motivation for modifying Sasaki's electronic still camera with the sequential scanning of Parulski et al. would have been to attain the higher resolution that is needed to display still pictures. This modification would have been obvious because using sequential scanning to fulfill the resolution requirements of a still picture is known in the art. Parulski et al. teaches this on lines 63-67 in column 6 and lines 1-2 in column 7.

E. Therefore, it would have been obvious to modify Sasaki's electronic still camera with; Yokoyama's image field addition techniques, Morimura et al.'s color filters, the automatic exposure mechanism of Miyazaki, and the sequential scanning of Parulski et al.

F. Considering claim 2, Miyazaki discloses the claimed change in exposure value on lines 48-56 in column 7.

G. Considering claim 3, Parulski et al. discloses a longer image readout period for still mode operation than motion preview mode in the second to the last sentence in the abstract.

H. Considering claim 4, Parulski et al. discloses the claimed amplifier on lines 52-55 in column 3, and element 32 in figure 2.

Art Unit: 2712

9. Claims 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (4,837,628) in view of Yokoyama (5,239,380) in further view of Morimura et al. (4,570,178) in further view of Miyazaki (4,929,824) in further view of Parulski et al. (5,828,406).

A. Considering claim 5, Sasaki discloses all the claimed subject matter, note: 1) the claimed electronic still camera is met by line 7-10 in column 1, 2) the claimed electronic view finder is met by element 30 in figure 2 and line 66 in column 3, 3) the claimed recording medium is met by element 15 in figure 2, 4) the claimed shutter release is met by the abstract, except 1) the claimed charge storage time, 2) the claimed image field addition steps, 3) the claimed color filter, 4) the claimed interlaced scanning, 6) the claimed automatic exposure mechanism, and 7) the claimed sequential scanning.

B. Yokoyama discloses the claimed image field addition steps in the abstract, figure 11, lines 19-30 in column 1, and lines 40-56 in column 3. Morimura et al. discloses the claimed color filters in lines 5-13 in column 5. Miyazaki discloses the claimed charge storage time and automatic exposure mechanism in lines 32-48 in column 7. Parulski et al. discloses the claimed sequential scanning lines 1-2 in column 6 and the claimed interlaced scanning in lines 56-60 in column 1.

Art Unit: 2712

C. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Sasaki's electronic still camera with; Yokoyama's image field addition techniques, Morimura et al.'s color filters, the automatic exposure mechanism of Miyazaki, and the sequential scanning and interlacing of Parulski et al.

D. The motivation for modifying Sasaki's electronic still camera with the Yokoyama's image field addition techniques would have been to allow interlace scanning of the solid state imaging device in the display mode. This modification would have been obvious because combining pixels to obtain a field image signal for the purpose of allowing the full frame reading of the solid state imaging device is known in the art. Yokoyama teaches this on lines 19-31 in column 7. The motivation for modifying Sasaki's electronic still camera with Morimura et al.'s color filters would have been to eliminate optical crosstalk. This modification would have been obvious because using a color filters to produce a color signal is known in the art. Morimura et al. teaches this on lines 5-13 in column 5. The motivation for modifying Sasaki's manual exposure with Miyazaki's automatic exposure mechanism, in which the camera's operation is based on charge storage time, would have been to reduce user error. This modification would have been obvious because manual exposure is prone to user error. Miyazaki teaches this on lines 54-60 in column 1. The motivation for modifying Sasaki's electronic still camera with the sequential scanning and interlacing of Parulski et al. would have been to attain the higher resolution that is needed to display still pictures. This modification would have been obvious because using sequential

Art Unit: 2712

scanning and interlacing to fulfill the resolution requirements of a still picture is known in the art.

Parulski et al. teaches this on lines 63-67 in column 6 and lines 1-2 in column 7.

E. Therefore, it would have been obvious to modify Sasaki's electronic still camera with; Yokoyama's image field addition techniques, Morimura et al.'s color filters, the automatic exposure mechanism of Miyazaki, and the sequential scanning and interlacing of Parulski et al..

F. Considering claim 6, Parulski et al. discloses the claimed relationship between the charge storage times in the second to last sentence of the abstract.

10. Claims 8, and 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki (4,837,628) in view of Parulski et al.(5,828,406).

A. Considering claim 8, Sasaki does not explicitly disclose the claimed second charge storage time in the recording mode as twice as long as the first charge storage time in the movie mode.

B. Parulski et al. discloses the claimed second charge storage time in the recording mode as twice as long as the first charge storage time in the movie mode as the second to last sentence of the abstract.

Art Unit: 2712

C. The motivation for combining the charge storage system of Parluski et al. with the camera of Sasaki would have been to have a relatively higher quality recording mode image. Parluski et al. teaches this a lines 38-52 in column 2.

D. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention, that combining the charge storage system of Parluski et al. with the camera of Sasaki would result in a relatively higher quality recording mode image.

E. Considering claim 10, Sasaki does not explicitly disclose the claimed doubling of the gain in the recording mode.

F. Parulski et al. discloses the claimed doubling of the gain in the recording mode on lines 52-55 in column 3, and element 32 in figure 2.

G. The motivation for combining the doubling of the gain in the recording mode with the camera of Sasaki would have been to use improved sampling (CDS) to lessen the noise of the resulting signal. Parluski teaches the use of double sampling in lines 52-54 in column 3.

Art Unit: 2712

H. Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention, that combining the doubling of the gain in the recording mode with the camera of Sasaki would allow improved sampling (CDS) to lessen the noise of the resulting signal.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 7, and 9 are rejected under 35 U.S.C. 102(b) as being rejected by Sasaki (4,837,628).

A. Considering claim 7, Sasaki discloses 1) the claimed determining step as lines 42-51 in column 3, 2) the claimed sending step as lines 48-51 in column 3, 3) the claimed shifting step as the last sentence of the abstract, 4) the claimed increasing step as the last sentence of the abstract, and 5) the claimed sending step as the last sentence of the abstract.

B. Considering claim 9, Sasaki discloses 1) the claimed sending step as lines 55-57 in column 6, 2) the claimed shifting step the last sentence in the abstract, and 3) the claimed gain increasing step as lines 55-61 in column 6, elements 64 in figure 6, and element 27a in figure 7. Note, the

Art Unit: 2712

recording mode amplifier (element 27a in figure 7) has its gain increased as a result of the amplification of field image signals from the CCD (element 26 in figure 7).

Action Is Final

13. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A Shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shorten statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner

Art Unit: 2712

should be directed to Eric Ferguson whose telephone number is (703) 305 - 0150. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305 - 3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308 - 9052 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Application/Control Number: 08/841,318

Page 14

Art Unit: 2712

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305 - 3900.

Eric Ferguson

E.F.

June 19, 1999

W. Garber
Wendy Garber
Supervisory Patent Examiner
Technology Center 2700